ABSTRACT OF THE DISCLOSURE

A moving picture encoding system capable of bit rate control, by which moving pictures are encoded while maintaining high quality even when there are substantial changes in the size of objects and the characteristics of texture is provided. A predictive area calculating parameter extracting means obtains a predictive area calculating parameter to describe a function that indicates temporal variations in the area based on the history of the area data of an object. Besides, a bit number model parameter calculating means finds a bit number model parameter to describe a parameter for a bit number model used in modeling the generated bit number per unit area. A target bit number calculating means estimates a predictive value of the generated bit number for the uncoded VOPs based on the predictive area calculating parameter and the predictive bit number calculating parameter, and accordingly, allocates the remaining allocatable bits to decide a target bit number for the next VOP to be encoded. A coding means encodes the VOP according to the target bit number.